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EDITORIAL:

THE USE OF VERNACULAR LANGUAGES IN EDUCATION

THE language problem is one which confronts a great many educational administrators when they come to develop policies, and it is even more frequently encountered by field workers and teachers who have to put policies into practice. From the particular point of view of fundamental education it may be said that language policies and language research are basic to most other work; for literacy teaching depends largely upon such prior data, and other aspects of the programme—teaching about health, agriculture, home-making and so on—are considerably helped if use can be made of the printed word.

During the past year Unesco has undertaken a comparative study of the use of vernacular languages in education. Before general conclusions or recommendations can be reached, a large amount of information must be assembled and analysed—as many particular cases as possible have to be studied from the comparative point of view. This first phase, of collecting data on a world-wide scale, has taken up the earlier part of 1951. At the time of writing (1 November) the material in hand reaches impressive proportions; it has been obtained from various sources and might be summed up briefly as follows:

Official Reports. In February and May 1951 the Director-General of Unesco addressed circular letters to all Member States asking them to co-operate in the study by supplying reports on relevant experience within their countries. The response to these requests brought in a number of short communications and at least ten reports of some volume.

Non-self-governing Territories. Under Article 73c of the Charter of the United Nations, the Administering Powers annually communicate information about the territories to the Secretary-General of the UN. Since all aspects of education are treated in these documents, a great deal can be learnt about the vernacular language problem. Relevant extracts and summaries have been made available to Unesco, and thus supplement the Official Reports mentioned above.

Regional Papers. As a further means of obtaining information about particular parts of the world, Unesco asked a number of specialists and institutions to prepare surveys for the regions falling within their competence. The value of these reports lies partly in the additional data brought to light and partly in

the fact that the authors used a comparative treatment for such linguistically complex regions as Latin America, India, Indonesia, Philippines, British Africa, etc. The experience of national experts was also drawn on in the effort to secure representative and up-to-date information from little-known areas.

Special Papers. While present policies, conditions and problems in each country are the main 'raw material' for this study, another type of enquiry is also needed. The broad topic, 'The use of vernacular languages in education', may be examined from the point of view of certain underlying factors: the educational pros and cons; the opinions of the psychologist; the views of the sociologist about cultural change in relation to language; the findings of the linguist about how languages are constructed; the practical problems of the printer; and so on. For these topics Unesco has invited well-known authorities in the different fields to contribute special papers.

Along with the search for fresh information there has of course been considerable activity in tapping existing sources. The literature of the subject is widely scattered both in space and time. The method adopted has perforce been to single out certain aspects for more exhaustive treatment, including the establishment of bibliographies.

As the collecting phase is reasonably advanced, the next step is analysis and assessment. For this purpose Unesco called a meeting of specialists—mainly linguists and educators—to discuss the available data and to frame a general report. The meeting took place during November and December. The specialists were invited in their individual capacities, but the choice of names was governed in part by a desire to secure a group with first-hand knowledge of most parts of the world. Without trying to give at the moment a report on the meeting, it can be said that the information collected during 1951 was carefully examined and assessed so that it might be made available during 1952. The administrator and the teacher who are concerned with vernacular language problems may therefore expect some results from the study during the current year. In a general way there will be monograph publications on the present position of vernacular languages, on the underlying problems and on possible solutions to these problems. In a specific way—and to any individual his own situation and problems are highly specific—the readers of this bulletin may draw on the material collected by Unesco by sending their enquiries to Unesco's Education Clearing House.

A. BARRERA VASQUEZ.

MUSEUMS FOR INDIANS IN THE UNITED STATES

by JOHN C. EWERS¹

SINCE the days of the discovery and colonization of North America the peoples of the civilized world have shown a marked interest in the Indian tribes of the present United States. The Indians' prowess as warriors, their skill as hunters, their picturesque costumes and distinctive crafts have made them romantic figures appealing to the popular imagination. 'Playing Indian' has become a popular pastime among the children of many lands.

In response to this widespread interest in Indians, American and European collectors have combed the Indian country seeking examples of Indian craftsmanship for exhibition in the great museums of the world. Here in the United States, museums *about* Indians were developed early and have multiplied rapidly. The first public museum in this country, founded in Charleston, South Carolina, in 1773, displayed Indian artifacts among its early collections. When Pierre Eugene Du Simitiere opened his museum of natural history in Philadelphia in 1782, the public crowded in to see his exhibits, composed in large part of Indian archaeological and ethnological specimens he had been gathering systematically over a period of seven years.

Today all large cities and many smaller towns in the United States have at least one museum. Many colleges and universities use museums to supplement their classrooms and libraries as teaching media. In spite of the recent tendency toward specialization of subject matter in museums, fully one-third of the museums in this country possess and display American Indian materials. Thus school children, students, hobbyists and the general public living in and near urban centres have ready access to exhibits *about* Indians. By viewing them these people gain a clearer understanding of how the Indians lived in the days before they were settled upon reservations.

However, a large proportion of the Indians in the United States now live on reservations in rural areas far from the urban centres where museums *about* Indians are located. Habits and customs in most Indian tribes have changed markedly within the last fifty to seventy-five years. The great majority of Indians on many reservations have very limited experience in the ways of life of their ancestors. This experience pertains primarily to observation of, or participation in, some of the old religious ceremonies and social dances that have survived. The day-to-day life of reservation Indians closely resembles that of non-Indian peoples of adjoining rural regions.

It should not be surprising to learn that modern Indians have an interest in learning how their forefathers lived, and that such knowledge has greater personal significance to them than to alien peoples remote from their reservations. Elderly Indians have told me that in the recent past their children and grandchildren have studied American history in school. They have learnt about Christopher Columbus, the European colonization of North America, the founding of the United States and its development up to the present time. That, they thought, was fine. But it would be better if the Indian children could be given an opportunity to learn about the history of their own tribe also.

During the decade of the 1930's, the Education Division of the Bureau of Indian Affairs of the United States Department of the Interior began to employ two media useful in the solution of this problem. They inaugurated a series of

¹ Published by permission of the Secretary of the Smithsonian Institution.

illustrated booklets, suitable for use in the Indian schools, popularly but accurately tracing the cultural history and describing the traditional crafts of particular Indian tribes or groups of culturally related tribes. They also began to utilize museum methods to teach Indians about their own cultural backgrounds through the establishment of museums *for* Indians, on or near reservations which were isolated from urban centres where museums *about* Indians existed. Although the Bureau of Indian Affairs has played a leading role in the establishment and maintenance of these museums, valuable co-operation has been received from local and state governments, educational institutions, civic organizations and interested individuals.

These new museums are open to the general public without charge and non-Indians are encouraged to visit them. In a sense the Indian museum on or near an Indian reservation helps the tourist to understand the history of the surrounding area just as any local historical museum interprets the history of its immediate area. But the Indian museum does more than that. It helps the non-Indian visitor to realize the nature of the problems faced by the Indian in adjusting his way of life to modern conditions. Space is also provided in these museum buildings for craft shops in which authentic handicrafts of present-day Indians are offered for sale. The combination of museum and craft shop has proved a happy one. The selected examples of typical crafts of earlier days displayed in the museum exhibits afford the non-Indian visitor a background for appreciation of the fine qualities of the modern articles sold in the craft shop. The sale of crafts is economically helpful to the Indians.

The majority of these modern museums *for* Indians that have been established to date are located in the Great Plains region between the Mississippi River and the Rocky Mountains. In that region there are a number of relatively large and populous Indian reservations, located on or near much-travelled transcontinental highways, yet hundreds of miles from large cities. Less than a century ago the ancestors of these Plains Indians hunted buffalo on swift ponies in this vast grassland. They were renowned for their deeds in war, for their picturesque buckskin costumes and tall feather bonnets, for their work in skins and their decoration of useful objects with colourful designs in paint, porcupine quills and/or glass trade-beads. Plains Indian life had been prominently featured in exhibits in American and foreign museums for more than a century. Now the Bureau of Indian Affairs was to interpret that life to the descendants of that culture, through museum methods.

The first of the new museums was established in Rapid City, South Dakota, in 1938. Rapid City is at the eastern entrance to the Black Hills and near the Pine Ridge and Rosebud Indian Reservations, where more than 20,000 Sioux or Dakota Indians reside. The museum building, a new log structure, was made available by the town of Rapid City. The Bureau of Indian Affairs provided the exhibits and has managed the museum and craft shop operations in the building. As a nucleus for the exhibition of traditional materials the excellent collection of John A. Anderson, for many years a trader on Rosebud Reservation, was purchased. This museum interprets the life of the Teton Dakota or Western Sioux.

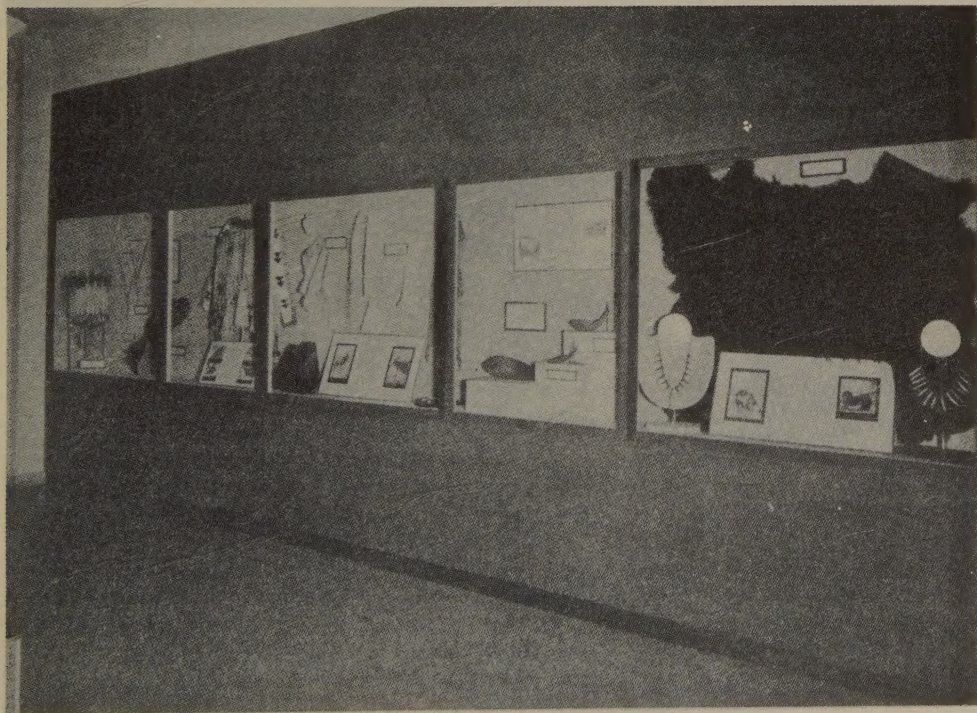
At Browning, Montana, in the heart of the Blackfeet Reservation and beside one of the main highways approaching Glacier National Park, the Bureau of Indian Affairs opened a larger museum, known as the Museum of the Plains Indian, in 1941. The fireproof, brick building was designed by Indian Bureau architects, and built with Federal funds. Many local Indians were employed in its construction. Since Browning is more than 400 miles from a large city, many Blackfeet Indians had never seen a museum. It was a curiosity to them. While it was under construction they referred to it simply

as 'that big red building'. But after it was completed and the exhibits installed, the older Indians, who spoke little or no English, named it *akéniman*, the name Blackfeet Indians formerly gave to the burial lodge of a chief or prominent warrior, in which all his finest possessions were arranged in his honour. The carefully selected materials displayed in the museum reminded them of that old-time memorial. In this case, of course, the museum memorialized the culture of a people rather than the fame of a single individual.

In a number of other ways Indians participated directly in the furnishing of this museum. Indian carpenters built the exhibit cases and the craft shop furniture. They did a remarkably fine job of precise cabinet-work. Some of the specimens exhibited in the museum were obtained from non-Indian owners of private collections, but many of the finest pieces were family heirlooms donated or sold to the museum by Indians living on reservations in Montana and Wyoming. Victor Pepion, Blackfeet Indian artist, painted on the walls of the entrance lobby a series of four impressive murals depicting a buffalo hunt as it might have occurred on the site of the museum neraly a century ago.

Although this museum has been visited by many Indians from other reservations in Montana and Wyoming, and Alberta, Canada, its central location on the Blackfeet Reservation has made it most accessible to the more than 5,000 Indians residing there. The museum is less than half a mile from their annual summer campground, where the Blackfeet assemble to observe their traditional religious ceremony, the sun dance. It is about a mile from the headquarters of the Blackfeet Tribal Council, the Indian Agency, the post office

Museum exhibits, Northern Plains,
Browning, Montana.



and stores of Browning, where the rural Indians come to shop and conduct personal and tribal business. Older Indians frequently drop into the museum to see the exhibits, to talk to the curator about old time customs, and to bring specimens for the collections. Blackfeet Indian school children in class groups visit the museum where the curator takes them on guided tours of the exhibits.

This museum has become a centre for research in ethnology, and especially in Indian crafts. The proximity of Indian informants and the museum's ethnological library make it an ideal location for 'field work'. Illustrated booklets on the history of the Blackfeet and on their crafts for use in Indian schools and for the information of the public, as well as technical papers, have been prepared on the basis of research performed at the museum. Study of the older specimens in the collections by modern Indian craftsmen and craftsmen-women has stimulated them to perfect their skills. They have adapted some of the old patterns to new uses in the decoration of leather jackets and other articles made for sale. Not only does the Blackfeet Indian Co-operative Craft Shop have its headquarters in the building, but the craftwork of Indians of other reservations in Montana and Wyoming are sold there.

Camp Scene, diorama by Allen Houser, Apache Indian artist, in the Southern Plains Indian Museum, Anadarko, Oklahoma.





Indian school girls visiting the Museum of the Plains Indian.

The Museum of the Plains Indian remains the largest of the museums under the jurisdiction of the Bureau of Indian Affairs. In addition to the three exhibition halls for permanent exhibits, the craft sales room, craft shop and curatorial offices and library, the building contains a room used both for meetings of Indians and temporary exhibitions, ample storage rooms for ethnological study collections, a fumigation chamber, a photographic dark room and laboratory and public rest rooms. The programme of the Museum of the Plains Indian illustrates what can be done. The non-Indian people of Montana have come to recognize this museum as a regional asset. With considerable pride they bring their friends from other sections of the country and from foreign lands to visit it.

In 1949, a similar but smaller museum was opened at Anadarko, Oklahoma. The fireproof, brick building was financed jointly by the State of Oklahoma and the Federal Government. The museum is operated by the Bureau of Indian Affairs. Anadarko is the headquarters of the Western Oklahoma Consolidated Indian Agency, serving the people of a score of tribes, including such well known Southern Plains Indians as the Comanche, Kiowa, Southern Cheyenne and Arapaho, Pawnee and Wichita. The exhibits in the single large exhibition hall in this Museum of the Southern Plains Indian interpret the cultures of those Indians in buffalo days. Indian participation in the develop-



The Buffalo Hunt, mural painting by Victor Pepion, Blackfeet Indian artist, in the lobby of the Museum of the Plains Indian.

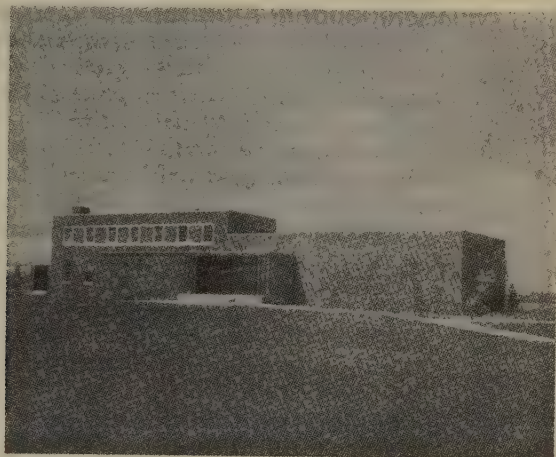
ment of this museum went a step farther than at Browning. Talented Indian artists created water colour illustrations to accompany objects in the exhibit cases to show their use or to present ideas that could not be interpreted by specimens alone. Thus, in an exhibit on Indian games, water colours portraying Indians playing the games supplemented the play material and the printed labels. Two miniature dioramas were added to the exhibit series. The figures were modelled, the accessories fashioned, and the backgrounds painted skillfully by Allen Houser, an Apache Indian artist, even though the diorama was to him a new medium of artistic expression. To ensure accuracy in every detail of his scenes, the artist consulted aged Indians who remembered the life in buffalo days. The experience of the Bureau of Indian Affairs has demonstrated the value of Indian participation in the creation of exhibits.

A unique museum for Indians is the Osage Indian Museum at Pawhuska, Oklahoma, developed and operated by the Osage Indian tribe.

In the Southwest, adjacent to the Kinishba Pueblo Ruins on the White Mountain Apache Reservation, the Bureau of Indian Affairs operates a small museum in which are displayed archaeological material excavated from the site and ethnological specimens interpreting the culture of the Apache Indians, historic occupants of the region. This museum was developed with the co-operation of the University of Arizona. The addition of a hall of archaeological exhibits is currently in progress at the Museum of the Plains Indian. Plans are being made for a combined archaeological and ethnological museum among the Eastern Cherokee of North Carolina.

There can be no doubt that the museum has proved an excellent medium for the education of Indians. Indians are keen observers. They need not be able to read the labels to see and appreciate museum specimens and graphic devices. Perhaps no people appreciate these new museums as much as do the aged Indians—many of them illiterate—who can remember the days when many of the articles displayed were in common use in their tribe. They believe future generations of their people should have an opportunity to learn about their tribal past, and are distressed that so many of the fine old objects have been taken to museums far from the reservations, where the Indians will have little or no opportunity to see them. These Indians are the ones who bring articles that have been treasured in their families for generations to the Indian museum curator, saying 'Here. Put this in our museum. I want it to remain where my descendants can always see it.' To the younger Indian who has been

to school, travels by automobile, lives in a comfortable log or frame house, and purchases much of his food and clothing from stores, the museum is never an 'ethnological' interpretation of the way of life of an alien people. Museum exhibits verify and supplement the oral traditions he has heard from the lips of his own grandparents. He finds in the exhibits a graphic representation of the cultural history of his people. Like the Englishman, the Frenchman or the Italian who visits an historical museum in his own country, the Indian emerges from his museum with greater respect for the courage, skill and ingenuity of his ancestors, a greater admiration for their craftsmanship and sense of beauty, and a greater pride in his own membership among the descendants of those people.



The Museum of the Plains Indian on the Blackfeet Reservation, Browning, Montana.

RURAL IMPROVEMENT IN IRAN

by THEODORE H. NOE

IN the small village of Mamazan, near Teheran, a big change is taking place. The villagers are acquiring a different outlook on life. This article is a brief account of what has been happening.

The Near East Foundation, an American philanthropic organization, is concerned with rural improvement in the Near East. The Foundation's policy is to conduct demonstrations of social improvements through education in rural areas. These improvements are in the field of economics; this means: improvement in agriculture which is the source of income for the villagers; improvement in health and sanitation, because if a person is sick he will have no incentive to better his lot; and improvement in home welfare by teaching women the art of cooking, sewing, child care, etc. The demonstrations are conducted by specially trained workers, who observe the Foundation's practice of only helping people to help themselves. Long experience has shown that little permanent gain is made where improvements are outright gifts to the people.

The rules of the Foundation lay down: (a) that it shall not begin work in any country unless the Government of that country requests that such a programme be started; and (b) that the Government of the country shall participate in any improvement programme conducted. In February 1944 the Near East Foundation was invited by the Government to carry out a programme of rural improvement in Iran, but owing to the conditions resulting from World War II it was late in 1945 before the work could be begun.

The Foundation is financed through voluntary contributions in the United States and for this reason its programme cannot be as broad as might be desired. The ultimate aim in Iran is to conduct a demonstration in the technique of training workers who will be able to go into backward rural areas and help the people there to attain a more abundant and satisfactory life. When the Iranian Government is in a position to send its own trained workers into all the rural areas, the work of the Near East Foundation in this country will have been completed.

It was first necessary to select a demonstration area, preferably near Teheran. After consultation with Government officials, it was decided to work in a group of five villages, in the Varamin area, which are owned and operated by an Orphans Endowment Committee. This Committee provided a garden of four hectares at the village of Mamazan to be used as the Foundation Field Headquarters. The first year was difficult but much was achieved. We gained the confidence of the people and also came to a satisfactory working agreement with the Ministries of Agriculture, Education and Health. These contacts are working more and more satisfactorily every year.

A survey of what has been accomplished can best be made if our various activities are described in turn. Our agricultural work has been carried out in very close co-operation with the Ministry. In the garden which was secured from the Committee we experimented with, and demonstrated, the cultivation of many different types of vegetables, grains and fruits. Some were new to the country but many were local crops which we were trying to improve. Reports on methods of cultivation, yield, suitability for the country, were completed and passed on to the Ministry. Seeds from all these crops were saved and distributed to landlords, farmers and schools. Agricultural machinery such

as tractors, ploughs and discs, was imported in order that Iranians might be instructed in their use and learn to demonstrate improved methods of cultivation. A large number of landlords requested such a service, and the change in their outlook is well illustrated in the following anecdote.

One year a landlord came to field headquarters at Mamazan and asked us to plough 100 hectares of land. I explained that we would be glad to do so but that he would have to pay for the actual expenses of the tractor. He agreed, and so we ploughed the land. When he then refused to pay his share, I merely wrote it off the books as a bad investment. The following year this same man came back to our headquarters and wanted some more land ploughed. I immediately refused his request and, when he protested, asked him if he had paid for the previous year. With a sheepish expression on his face he said: 'No, I was a bad man but I should like to pay now.' After he had paid, he again asked us to plough his land but I again refused. He said: 'But I paid you for last year.' 'Yes', I replied, 'I know you paid us for last year but I don't want to have the same trouble in collecting this year's fee'. 'Oh, this time I shall pay you in advance,' he said. I then agreed to plough his land but I was anxious to know why his attitude had so completely changed. 'Last year,' he explained, 'I kept a record of my crops and the yield was so much greater on the land that you had cultivated that I am convinced your method is better.' This same landlord had refused us permission to open a school in his village but after that day he bought uniforms for all children of school age and gave a building for the school. Most of the landlords in this area now own their own tractors and are employing as drivers and mechanics villagers trained by the Foundation.

Poultry in Iran has been of poor quality for a number of years. Owing to poor breeding and lack of food the hens are very small and lay small eggs. A good hen lays only about fifty eggs a year. To deal with this problem we imported a good breed of poultry from the United States and found that by crossing the imported birds with native hens to acquire immunity against endemic diseases, and then breeding back to the imported birds, a better strain was produced. To provide adequate feed, we found out how to prepare a mash that is very inexpensive and can be made by the villagers with materials on hand. Many of the villages in our area, and some outside, have already benefited from this improved flock of poultry, since every year we distributed eggs for breeding purposes.

To alleviate the grave shortage of water—always a difficult problem in this area—the Foundation drilled an irrigation well at one of the villages. The landlord was so pleased with the additional water that he immediately paid the entire cost of the well. Another well was drilled at Mamazan for demonstration purposes and several other landlords have already signed contracts to drill wells in their villages.

Our education project has received very considerable help from the Ministry of Education. When the work first started in this area, there was one school; now there are thirty-four—all primary. The subjects are the same as those taught in other Iranian schools, with the addition of sanitation and agriculture. Each school has a vegetable garden for practical work.

As the older people have never had a chance to be educated, adult literacy classes are held in thirty-one villages. Sanitation and agriculture are also taught.

One of the biggest problems facing us was the lack of trained teachers for village schools. It is true there are a number of training colleges in the cities of Iran, but the graduates either cannot or will not endure the hardships of village life. In co-operation with the Ministry of Education, the Foundation opened a teachers' training school in this area. The students have to be between the

ages of 18 and 22, must have completed a sixth grade education, and must be sons of farmers. They are trained for a period of two years in the usual subjects taught in Iranian schools, but also receive instruction in agriculture and sanitation. After completing the school course they are kept in the Foundation area for a period of one year for further training and then go back to teach in other villages. These students are also given instruction in carpentry and blacksmithing so that they may become effective village leaders. This school is administered by the Ministry of Education and has fifty-five pupils.

In most Iranian villages sanitation is almost non-existent. Disease is rife and according to a survey conducted during the first year, eighty-five per cent of the people in the demonstration area had malaria. In co-operation with the Ministry of Health a malaria control programme was inaugurated. The first year DDT was sprayed free of charge; in subsequent years the landlords furnished the DDT, the villagers furnished the labour, and the Foundation supplied only supervision. In this way we have been able to lower the malaria rate to six per cent. The following anecdote illustrates the reaction to this malaria programme.

In a village called Arambuyeh, in 1946, there were many people with malaria, dysentery, etc. In the summer of 1947 this village was sprayed with DDT and in October 1948 an old man stopped me and made this statement: 'Last year we kept our donkeys busy carrying sick people from Arambuyeh to the hospital at Palasht. This year we did not have to use our donkeys for that purpose. I am an old man and I never thought I would live to see my village without many sick people but now I have.'

One of the biggest problems in the villages is to obtain pure drinking water. Water for drinking comes from rivers or streams and has to be stored in *abambers* (large underground storage tanks) because of the scant rainfall during the summer. We decided to construct filters at the entrance to every *abambar* and a porous brick filter within it. These two filters, for a village of approximately 300 people, together cost only \$50.

The latrines, such as they were, made excellent fly breeding places which were a constant source of dysentery. When it had been demonstrated that this menace could be eliminated by the use of modern, sanitary latrines, most of the villages had them installed.

As it is impossible to have personal contact with every inhabitant of the area we have published bulletins written in very simple Persian and illustrated with simple pictures. They cover such subjects as 'Malaria', 'Safe drinking water', 'Poultry raising', 'Home vegetable garden', 'Guide to rural teachers' and 'The advantages of using agricultural machinery'.

It has already been stated that the Foundation began its programme in a group of five villages. This work has now progressed to the point where we are working in a group of 135 villages. All this has been made possible through the generous co-operation of the Iranian Government and Iranian landlords and because the people want to learn. It is felt by this writer that the Iranians will soon be in a position to manage this programme on their own. Many young Iranians have already been trained in social improvements; they in turn are training others. Part of our work has already been taken over by the Iranian Government using personnel whom we have trained; the malaria control programme, for example, has now been extended to cover the whole country.

I feel that this is an example of what any group of people can do if they are willing to work to help themselves.

THE PRACTICAL AIMS OF VOCATIONAL TRAINING INSTITUTES FOR TEACHERS IN CULTURAL MISSIONS

by Professor J. LAMBERTO MORENO JASSO

This abridged version of a talk by Professor Moreno Jasso will interest readers who are concerned with the problem of training field staff.

My remarks are related to the topics discussed at the Round Table meetings held by the Directorate of Literacy and Educational Extension Services with the Inspectors of the Cultural Mission Branch. These meetings produced some interesting conclusions which may be regarded as a dispassionate criticism of the work so far accomplished by the Cultural Missions. In particular, I should like to say a few words about the second item discussed at those meetings: 'The Planning of Regional Centres for Mission Training.'

One of the most important paragraphs in the conclusions to which I have referred draws attention to the shortcomings of the staff—the human material on which the Department of Cultural Missions has to rely to carry out its plans for transforming the life of communities by helping to solve their economic, social and cultural problems. The main defect has been the inadequate training of the academic and practical specialists concerned, a deficiency which, in most cases, is not to be imputed to lack of intellectual or manual ability, but to a lack of the broad vision and missionary spirit which are necessary to achieve the aims set out in the basic principles governing our scheme.

The shortcomings of the staff, particularly the practical staff, are partly due to the often unsatisfactory methods of recruitment hitherto practised, without proper preliminary examination of the antecedents and abilities of the instructors employed in the Service.

Another reason is the poor salaries paid to these specialists. Indeed, the already low rates of pay obtaining when the second stage of the Cultural Mission Service began in 1942 are still in force today.

Nevertheless, while the shortcomings of the practical specialists are regrettable, an even severer criticism may be levelled at the members of the academic staff. A diploma or certificate, notwithstanding its legal validity, is no guarantee of ability for educational work in missions or of proper training to undertake the heavy responsibilities of this cultural work. In justice to the graduates of Teachers' Training Colleges, who are supposed to be responsible for the leadership of our Cultural Missions, it must however be said that their unsuitability for the functions of leaders of mission teams is not their own fault; they hold the diplomas required but lack other qualifications. The reason for this is obvious.

The Teachers' Training Colleges have not yet succeeded in providing specialized training in mission work for student teachers, who, for this reason, are unable to take their proper part in the social life of either the town or country districts. Their syllabuses do not include the sociological studies which would equip the new teachers to analyse the problems of a community and to seek and find suitable solutions. The Training Colleges provide academic and systematic instruction applicable in schools and colleges; but this instruction bears no relation to educational activities outside the schools. Our

Missions have to deal in the main with adults, not children. Their business is not to run schools but to guide backward communities towards a higher standard of life.

The realization of these shortcomings, added to an unremitting concern for the success of the work, has stimulated the Department of Cultural Missions to regard as a matter of urgency the establishment of a Training College or other permanent institution whose graduates will measure up to the requirements set forth in the Basic Principles of Organization and Operation, now in force, in which the functions assigned to each specialist are prescribed in most definite terms. This new type of training college will be designed to ensure that carpenters, masons, mechanics and other practical workers on the staff of a Cultural Mission shall not only be good carpenters, better masons and the best possible mechanics, but, in addition to the elementary knowledge they have acquired in primary schools, shall be given the training which is essential if they are to apply their knowledge and experience successfully to the training of adults living in culturally and economically backward communities. Trained teachers from the towns, who have completed their six years' course, will be given a knowledge of community life through suitable sociological studies, so that they may analyse and understand the problems of rural communities and may thus be qualified to fulfil satisfactorily the duties of the head of a Mission and to direct the work effectively.

In 1949, Dr. Lloyd Harris Hughes was sent to Mexico by Unesco to make a thorough study of our Cultural Mission programme. This eminent educationist examined with the greatest care and interest the basic principles governing our educational extension scheme. Travelling extensively throughout the country in order to visit the Missions in rural districts, he interviewed many country people, made the acquaintance of men's and women's societies, and saw in action the means by which the theories of the Mission movement are applied to the life of rural groups. He took notes, made films and came to the conclusion that the Mexican Cultural Missions represent a new and useful factor in the education of the underdeveloped masses. He came to the same conclusion after seeing the work of the Cultural Missions in manufacturing or industrial centres, and in the workers' quarters of the Federal District.

In a pamphlet written in January 1951 and entitled *The Mexican Cultural Mission Programme*,¹ Dr. Hughes, while giving the warmest praise to our scheme, points out the same defects as were noted at one of the Round Table meetings held by the Directorate of the scheme and its Inspectors. In order to remedy these defects, Dr. Hughes agrees that it would be advisable to set up some permanent institution for training teachers specially suited for this important work in Missions; and, on the basis of his own observations, he advocates that these teachers, should be paid salaries more in keeping with the importance of their role in society.

During this year, refresher courses and specialized guidance courses for teachers working in Missions have been held in different parts of the country. You yourselves are now meeting in an Institute which has been set up in a very poor district of the capital, and you cannot be unaware of the great need for other institutes in which the teachers who have not yet enjoyed this advantage, may meet. The Directorate has undertaken to bring together all the teachers from all the Mission teams working throughout our vast country in a great assembly in which they will be able to explain the difficulties they have encountered. A patriotic appeal will be launched for the allocation to the Cultural Mission Scheme of permanent premises for its headquarters and the

¹ This pamphlet has been published by Unesco, in English, French and Spanish.

establishment of a Permanent Institute or Training College for Mission Teachers.

The aim of the institutes which have been set up in the past has been to provide better professional training of teachers and better guidance in the work they have to do. The institute with which we are now concerned has the same purposes; but the ultimate goal of all these institutes is the foundation of a training establishment capable of developing the outlook and personality required of teachers engaged in mission work. This idea has been adopted as a result of constant pressure on headquarters from the out stations.

But if this ultimate goal is to be reached, we shall need to use all our material and moral resources to bring about two things: first, recognition of the fact that cultural missions are not merely necessary but essential and we must prove that they are essential by our own work, determination and integrity; secondly, recognition of the cultural missions as a necessary supplement to primary education, the latter being not enough in itself to raise the standard of living in humble communities. Once we have established a national centre for teachers serving in these cultural missions, the latter will come to be regarded as an essential part of our national education system and a permanent feature of our fundamental education programmes.

Finally, let us not forget that, if our main object is to raise the dignity of the peoples, we must begin by endowing our scheme with all the prestige which springs from conscientious endeavour, deep conviction, integrity, industry, gentleness and good will.

ECOLOGY AND FUNDAMENTAL EDUCATION

by ANDRÉ LESTAGE

BOTH ecology and fundamental education are recent concepts and not well known to the general public. In 'fundamental education', however, the word 'education' gives some idea of what the term conveys. No such clue is provided by 'ecology', so let us begin by saying that it is, broadly, 'the study of the constant exchanges between environment and living being'¹. We shall return to this; but I must preface my remarks by saying that I have no intention of discussing the scientific content of ecology—that is a task for the specialist. Yet this science is like any other: it contains general ideas accessible to everyone, and I believe that fundamental educators should become acquainted with these ideas and reflect on them.

Since fundamental education is familiar to us, no long description is called for. It is defined as 'the minimum general education needed to help children and adults who have been deprived of schooling to understand the problems of the *environment* they live in, to realize their rights and duties as individuals and as citizens, and to take an effective part in the *social and economic development* of the community of which they form part'. The italics are mine, for these are terms we meet again in examining ecology. Let us now see the bearing of fundamental education on economic development and on the environment, in the field of agriculture.

It is true that hitherto fundamental education has been mainly (though not exclusively) conceived as applying to rural areas. 'In general, the pattern of fundamental education is most clearly seen in relation to the vast rural areas of the world. The peasant or tribal peoples who provide the world with all-important primary products are engaged in a *ceaseless struggle with their physical environment*. . . if it (fundamental education) can help to counteract the *wastage of natural resources* caused by improvident agriculture and erosion, it will contribute also to world prosperity and peace.' We are now at closer grips with the problem; clearer ideas appear and the evil is brought into focus—struggle with the physical environment, wastage of natural resources.

What does Unesco propose for combating these ills? Or rather, what role can fundamental education play in the struggle? The first need, clearly, is to extend basic skills such as literacy, for the printed word is one of the keys to unlock the knowledge and wisdom of mankind. But this teaching should be linked with knowledge and understanding of the physical environment and of natural processes and with occupational education having a direct bearing on productivity and living standards.

From such a point of view, fundamental education requires complete knowledge of the environment—particularly the physical environment—in order to improve by appropriate techniques the economic resources of a country and thereby the living conditions of the people.

Since it is also stressed that this improvement should not be imposed from without, but should result from the active participation of the group concerned,

¹ Carton in 'Tropical meteorology and climatological ecology' (course of lectures given at the Ecole supérieure d'application d'agriculture tropicale, under the auspices of the Ministère de la France d'outre-mer, France). The ideas on ecology reflected in this article are derived from this course and from the courses of lectures delivered by Adam in 'Course on general agriculture and agricultural ecology applied to the inter-tropical countries' and R. Porteres in 'Course on tropical agro-ecology'.

there is a temptation for the fundamental educator to become a champion of 'modern' or 'revolutionary' methods of agriculture. If such an educator is proud of his mission and confident of the value of his goal, may he not be tempted to use 'productivity' as a slogan, blindly subordinating to it all other considerations?

This is a fair question. It is certainly true that the food problem is an urgent one over vast areas of the world. In many of these regions, too, primitive and wasteful agriculture, deforestation, soil erosion and uncontrolled pests continue to limit food production and to make deserts out of once fertile lands. The urgency and the sad record should certainly incite us to action—but also to reflection before action.

Some excellent authorities, with a profound scientific knowledge of these problems, have not failed to reflect. The train of their thought has been: this is essentially an agricultural question; but 'agriculture is not so much a science as the application of various sciences, among which biology has pride of place, with recourse also to human sciences such as sociology, ethnology, economics, law, etc.'¹. It is thus insufficient for solving problems that are essentially scientific even if they cannot be defined with mathematical exactness. Fortunately, man has progressed beyond simple agriculture, and above it we find agronomy. 'Agronomy studies the laws and principles underlying the application of various sciences in agriculture; it is the theory of agriculture.'¹ Less empirical and more scientific than agriculture, agronomy is continually searching for 'laws'—or at least rules—applicable to agriculture.

Yet if we return to the definition of agriculture we begin 'to detect relations between the environment and living beings—man, plant and animal. The study of these relations is the special field of a fairly recent science: ecology'.¹

To this may be added other definitions given by Adam. 'According to several authors, ecology is the science of biological phenomena as they occur in nature, the home (*oikos*) of living beings. Others define it as the study of the influence of the environment on living beings.' 'According as one studies the connexion between different forms of life and the physical environment, one has plant, animal or human ecology. An application to agriculture in this general way, if the environment is agricultural, gives us agricultural ecology.' As Adam points out, this view is somewhat different from that adopted by the International Commission on Agricultural Ecology as a result of the work of Professor Azzi. For this Commission, agricultural ecology was simply a branch of plant ecology, concerned in particular with the yield of products of use to man. Its highly practical aim would be the adaptation of crops to the environment of each region, in order to achieve the best possible yield. The basic concept was that of productivity.

'But in agricultural production the plant cannot be separated from the animal and man; it seems preferable to me to conceive agricultural ecology as the application of plant, animal and human ecology to agriculture, always with this same view of productivity which is the essential goal of agriculture.'

The adaptation of crops to the environment, and the returns—these are things which ecology can estimate with reasonable accuracy. But such calculations are objective. At this point man intervenes again, and he may well upset the data of ecology as of any other science.

All goes well as long as 'man seeks to obtain from the plants he exploits or cultivates the maximum yield of products for his needs—a return in quantity and in quality' (Carton). So long as this leads him to seek the limiting and optimum conditions of the environment for these plants, so as to secure the

¹ Adam cited above.

best return, such a process is natural and represents the practical goal of agricultural ecology.

However, it has often happened in the past that the land has been more exploited than was necessary for the simple satisfaction of man's needs. In the so-called underdeveloped regions agriculture 'has the feature of continued intensive and wasteful exploitation of products directed towards the temperate countries, with no care for the exhaustion of the natural environment and with a single criterion for judging the values of farming methods—the principle of return for invested capital' (Porteres).

This will certainly not be the point of view of fundamental education. There are official documents enough to prove that Unesco has never taken this point of view and that, on the contrary, it stresses the higher interests of native populations. But if fundamental education expands as we hope it will, it may well come to be criticized along these lines; criticized more or less openly, more or less hypocritically because the criticisms will never be made in the name of the private interests concealed.

As to the second point, knowledge of how to adapt to the environment, it is still more important to avoid errors, since here they may often be accepted in good faith as truths. When the white man, for example, settled in Africa and set about exploiting it with all the technical refinements at his disposal, he could well believe that the returns acquired would also benefit the natives. Yet Porteres says: 'The harnessing of nature by and for the white man has been the greatest shock ever experienced by the inter-tropical zone, and never before have mankind's devastations been as rapid or as widespread,' and he adds: 'At the same time it must be remembered that no human society can progress if its agriculture remains primitive.'

Are we then caught in a vicious circle, and must the fundamental educator resign himself to doing nothing about this apparent contradiction? By no means. We simply have to return to the basic problem, and follow the route taken by agronomists and ecologists when they observed—in the words of Porteres—'that primitive systems of farming had been constructed, through age-old experience, to agree with ecological conditions', and he adds the note: 'I say "agree with" advisedly, not "in harmony with".'

By following this train of thought, we do not remain at the primitive level of an empirical agriculture, but improve it scientifically. 'Where it was previously thought that these methods of agriculture should be improved by applying to them the principles of a European type of agriculture, we now recognize generally that these primitive systems of farming should develop along their own lines. A part—the most important part—of tropical agriculture is now open to research: the study of the methods and principles of native systems of cultivation.' And Porteres arrives at this conclusion: 'If one wishes to improve local systems, one must first know them well in order to introduce with certainty the benefits of some agricultural practices of a European type.'

This last remark might well justify the view that all agricultural specialists should make a study of fundamental education. It is interesting to note that Unesco has constantly claimed that the first step of any project should be a basic survey to collect essential data—including those that refer to the physical environment, the climate, rainfall, plant and animal life, material resources in relation to human needs—which are the first elements of ecology.

These remarks need some expansion. It is not suggested that the *status quo* should be preserved, for fear of a disaster. On the contrary, a great many improvements can be made, through tried techniques and skills, in the agriculture of underdeveloped areas, with consequent advantage to the people requiring fundamental education. The machine can ease mankind's weary

toil. When properly used it can also lead to increased yields, without 'killing the soil' for mercantile ends. If it is clear that the people of a region which is economically underdeveloped can overcome their poverty only by outside assistance, modern technology obviously has a part to play in this 'outside assistance'.

Does this mean that ecology should be taught in fundamental education centres? Naturally not, since it is a science that demands long and rigid training. We do not suggest a full training in medicine for those teaching simple rules of hygiene, or a deep knowledge of physics for those who demonstrate how to build better homes. But the specialist in fundamental education, and the whole team where there is one, might well reflect on these issues basic to the environment; however precarious the living of the people, it rests on this environment whose destruction can only worsen the situation we are trying to improve.

'The soil is the meeting-place of the three kingdoms, mineral, plant and animal; here is a world of activity, with its stabilities and instabilities that result in life or death. Microbes give battle and we are the prize. Depending on whether the useful or the harmful gain the day, our very existence is secured or endangered,' says Adam.

These words of an ecologist are worth meditation not only by fundamental educators, but by all educators, indeed by all responsible men.

COMBATING ILLITERACY IN CUBA

The night school for adults has expanded considerably in recent years. The following account of the scheme is an official communication from Dr. Diego Gonzalez, Superintendent-General of Schools, Cuba.

NIGHT schools—centres specially established for the eradication of adult illiteracy (for the children attend the compulsory school)—have in recent years been greatly increased in number and have even been established in rural districts where they did not previously exist. They have begun to function in small villages and have been increased in the towns by the organization of school centres, where instruction in specific subjects is imparted. These institutions have succeeded in attracting persons of all ranks and ages (including the very young and the very old), thus benefiting almost the whole of the illiterate population.

This is largely due to Decree 2556, dated 21 August 1950, which established night schools of three categories: A—schools with a single classroom; B—schools with more than one classroom; C—vocational schools which function independently or as annexes to the schools of category B.

ORGANIZATION

According to Article 310 of the regulations, night schools of category A, i.e. schools with a single classroom, shall be established in sparsely populated areas, shall impart instruction for two and a half hours daily, and shall be devoted exclusively to the eradication of illiteracy. At these schools instruction shall be given up to the third class level in the following subjects: reading, writing, grammar and syntax, arithmetic, and elementary natural and social science. At the schools in the rural districts, elementary natural science shall be directly related to agriculture.

Night schools of category B, i.e. schools with more than one classroom, shall be established in areas where there is a requisite number of adults and shall impart instruction for at least two and a half hours daily; one of the classrooms shall be devoted to the teaching of illiterates. These schools may give instruction up to the fifth or sixth class levels in the following subjects: reading, writing, grammar and syntax, arithmetic, social sciences, natural sciences, anatomy, physiology and hygiene, agriculture, manual arts and applied drawing.

Night schools of category C, i.e. vocational schools, shall be classified as urban and rural schools and shall be established in suitable areas capable of defraying the cost of their establishment and upkeep. Teaching shall be imparted for at least two and a half hours daily; this teaching time may be extended by the District Inspectors if local conditions warrant it.

Urban vocational schools shall classify their pupils according to the occupations or activities chosen by them, and pupils may study any of the following groups of subjects:

First group: commerce, accountancy, typewriting, shorthand, English, salesmanship and propaganda.

Second group: industrial arts, carpentry, masonry, watchmaking, radio technique, shoemaking, saddlery, bookbinding, typography and mining.

Third group: home training, tailoring and sewing, weaving, embroidery, music, domestic science, rearing of children, dietetics, cooking, decoration and home crafts.

Fourth group: maritime industries and activities.

The following subjects shall be compulsory for the pupils of all these groups: arithmetic, grammar and syntax, social and industrial hygiene, and legislation as applied to specific activities.

Rural vocational schools shall classify their pupils according to the occupations and activities chosen by them, and pupils may study any of the following groups of subjects:

First group: applied agriculture (theoretical and experimental).

Second group: rural building.

Third group: rural industries.

Fourth group: theory and practice of mining.

The following subjects shall be compulsory for the pupils of all these groups: arithmetic, grammar and syntax, rural and industrial hygiene, and legislation as applied to specific activities.

Pupils who have completed the relevant courses in the schools of categories A, B, or C shall be entitled to the certificate.

Night schools may also teach any other subjects which, in the opinion of the school authorities, answer local needs, provided that a request to that effect is made by the Director and is approved by the District Inspector, the Inspectors of Special Education and the Office of the Superintendent-General of Schools. If the teaching of the new subject or subjects requires the establishment of a new teaching post, the procedure laid down by the present regulations for the establishment of classrooms shall be followed.

In addition to the compulsory subjects, every pupil may study any other subject or subjects.

OTHER REGULATIONS

'Article 311. The time-tables of night schools shall be fixed by the Director and the teachers in accordance with the needs of the pupils, subject to the approval of the District Inspector.

'The opening and closing hours of night schools shall be fixed by the Board of Education upon the recommendation of the District Inspector, who shall take local conditions into account.

'Night school teachers who are in charge not of classrooms but only of groups of subjects must arrive at the school fifteen minutes before the commencement of their lessons and may leave immediately after the lessons have ended.'

'Article 312. In night schools of category A, i.e. schools with a single classroom, for men, women or both, women's classes shall be in charge of a woman teacher, men's classes in charge of a man teacher and mixed classes in charge of a woman or man teacher.

In night schools of category B, i.e. schools with more than one classroom, women's classes shall be in charge of a woman teacher, men's classes in charge of a man teacher and mixed classes in charge of a woman or man teacher; there shall be as many teachers as there are classrooms in the said schools.'

'Article 313. Night schools of category C, i.e. urban and rural vocational schools, shall be provided with such teachers as are required for giving instruction in the groups of subjects taught in schools of this category.'

'Article 314. Night schools may be attended by pupils of fourteen years of age. They may also be attended by children of school age who are unable to attend day schools, provided special authorization to that effect has been obtained from the District Inspector, to whom adequate reasons for such authorization must be produced.'

At the present time there are some 1,862 night schools in the Republic. The teachers at these schools are devoting all their energies to the eradication of illiteracy, and have already obtained remarkable results.

The Cuban Ministry of Education has in addition, however, undertaken a large-scale literacy campaign in which not only the State Schools are participating, but also those citizens who, although they are not teachers, possess a certain culture and are eager to serve their fellow-countrymen. The scope, development and methods of this campaign are covered by a decree.

The National Literacy Board has just drawn up regulations which cover the activities to be carried out by the local boards and relate to technical and administrative matters, publicity, statistics and mobile units, as the campaign must be completely co-ordinated in all its various aspects.

The statistics hitherto compiled indicate that this literacy campaign is proving a success.

The co-operation given to the Ministry of Education by the general public could not be greater, and this shows once again that all noble tasks evoke an effective response from the various sections of the community.

RURAL AMERICA AND THE EXTENSION SERVICE.

by YANG HSIN-PAO

The writer is an Agriculture Officer of FAO. In 1949 he published, in collaboration with Professor Edmund de S. Brunner, Teachers' College, Columbia University, a book with the same title as this article. Readers are invited to examine this new publication. Orders can be placed with the Bureau of Publications, Teachers' College, Columbia University, New York 27, N.Y. The necessarily brief statement below is an attempt to sum up the main features of this vast experiment in adult education.

EXTENSION Service may be called America's roadside teaching. It brings science to meet local experience and to solve farm, home and community problems, and is perhaps the largest rural adult education agency in the world.

Extension Service is a unique co-operative undertaking carried on by federal, state, and local government with the control largely at the state and county level. Its primary function is education in agriculture and home economics, with objectives which may be listed as: efficient production, bringing good incomes; comfortable homes, ensuring happy family living; responsible citizens, building wholesome and prosperous communities.

Extension Service has been in existence for thirty-six years. Its achievements have attracted attention and inquiries from many sources within and outside the United States.

THE SMITH-LEVER ACT

The legal basis for this nation-wide adult education programme was furnished by the passage of the Smith-Lever Act in 1914. This Act stipulated that the extension work was 'to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same'. It further provided that this work should be carried out by the state agricultural colleges in co-operation with the United States Department of Agriculture. The cost of operating extension work was shared by the federal and state governments. Each state received a basic grant of \$10,000 annually from the national treasury. Additional amounts above the basic grant were divided among the states in proportion and were available only when matched by state or local contributions. In terms of local administration, the Act provided for the appointment of an itinerant agricultural adviser in each county. He gave leadership and direction along all lines of rural activity—technical, social and economic. The Act also placed home economics and youth work on a firm footing.

The Extension Service system is composed of three main units, with a structure and functions that may be summed up as follows.

THE FEDERAL EXTENSION SERVICE

The first unit is the Federal Extension Service, which operates within the U.S. Department of Agriculture. It is through this service that the various bureaux and agencies of the U.S. Department of Agriculture pass on information and educational material to the rural population. The director represents the Secretary of Agriculture in his relations with the co-operative extension work throughout the country. The Federal Extension Service comprises six divisions: Business Administration, Extension Information, Field Studies and Training, Subject Matter, Field Co-ordination and Agricultural Economics. The total staff of the Federal Office is about 200 persons, serving as administrative officials, liaison officers and subject-matter specialists. This office is not a regulatory body; it exists to serve the needs of the farmers, and the control of Extension is largely exercised by the states.

THE STATE EXTENSION SERVICE

The second unit is the State Extension Service, which operates within the State Agricultural College. Its main functions are to localize and simplify research, and to help county agents to adapt research to local problems.

On the state level, the Extension Service is in the charge of the Extension director. He holds a rank equal to that of the dean of resident teaching and the director of the experiment station. He occupies a strategic position in the Extension Service system, since he is responsible for the administration and execution of all the duties and obligations agreed upon by the land-grant colleges and the U.S. Department of Agriculture. He administers all funds, looks after all projects and plans, examines and approves all publications, and serves as the contact officer with the U.S. Department of Agriculture.

Working under the state Extension director is a group of people consisting of one or more assistant directors, a supervisory staff, subject-matter specialists, editors and publicity agents, a group of clerical helpers and a number of county Extension workers.

The supervisory staff consists of men and women who are usually called district agents, and in some states, state leaders. These district agents or state leaders serve as the mouthpiece of the state, the eyes and ears of the state Extension director. They interpret Extension objectives, methods and procedures to the county extension personnel and often to the public. They help local agents in solving some of their problems. Each supervisor usually has charge of ten to twenty or more counties.

The subject-matter specialists familiarize local agents with the latest information and facts regarding research and studies in their respective fields. They give technical advice and prepare materials on the various lines of agriculture and home economics. They bring back to the state Extension office information regarding the problems, needs, and attitudes of local agents and farm people. The number of subject-matter specialists varies in accordance with the needs and size of the several states.

The editors and publicity agents disseminate news and information about the state Extension service to local agents, and to the general public as well.

THE COUNTY EXTENSION SERVICE

The county is the basic unit of the Co-operative Extension Service. The key-man is an agricultural adviser, generally called the county agent. He is a

college graduate and teacher of practical farming. He is close to the farm folks and accepted by them as a trusted friend. A county agent usually serves close to 2,000 farms, but many agricultural counties have more—6,000 and upwards is not at all unusual.

The County Agent

The job of the county agent is essentially educational. His teaching task is to induce farmers to adopt better methods of cultivation and farm management. He should possess a clear and intimate knowledge of those essential aspects of agriculture and rural welfare which affect farm people and rural communities. He conducts Extension teaching through different channels, such as field demonstrations, conferences with individuals and groups, farm visits, press, etc. In an average year, he holds 147 meetings for training local leaders in method and result demonstration, and for other general purposes; he makes 527 farm visits, besides receiving 1,458 visitors in his office and 1,174 telephone calls; he distributes 1931 bulletins, and writes 108 articles.

The county agent also has to formulate his budget and secure local and state approval for it. He not only has to deal with his lay county council or equivalent organization, but also trains and administers a staff of local volunteer leaders, often numbering several hundreds.

The Home Demonstration Agent

Working with the county agent is a home adviser, usually known as the home demonstration agent; this post exists in about three-fourths of the counties in the United States. The home demonstration agent works with women and girls largely on a neighbourhood or community basis. She has professional training in home-planning, home-making, child care, health and nutrition. Her rank is usually equal to that of the county agent. The scope of her service generally covers food and nutrition, clothing, home management, house furnishing, family relations and recreation. In an average year, the home demonstration agent works with 988 homemakers, holds 266 meetings for leader training and for method and result demonstrations, and for other general purposes. She visits 267 homes, besides receiving 493 visitors in her office and 618 telephone calls. In an average year, she also distributes 2,807 bulletins, writes ninety news articles and gives ten radio talks.

The 4-H Club Work

Boys' and girls' club work makes up the third unit of Extension Service on the county level. Several hundred counties have 4-H Club agents. These leaders worked in 1948 with 1,829,000 boys and girls within the age range of ten to fourteen or fifteen. The symbolic ideals behind the 4-H are: training of head for the power of thinking, planning, and reasoning; training of heart for becoming kind, sympathetic, and true; training of hands for being helpful, useful, and skilful; and training of health for strength and efficiency to live a happy life. The 4-H Club is necessarily a local neighbourhood group.

The Extension Service's local programmes cover three kinds of activities: agriculture (working with farmers); home economics (working with farm wives); and 4-H Club (working with farm youths). These activities supplement one another: work in one branch leads to contacts with the other two, since usually a complete family lives on the farm. The spread of influence, therefore, follows the same course.

The foregoing is a very brief account of the work of the U.S. Extension Service System. Besides its normal activities, a great deal has been done in marketing, and research has been carried out on the effects of the social and economic situation on Extension.

METHODS OF EXTENSION TEACHING

Extension Service is an out-of-school system of education in which adults and young people learn by doing. Like all adult education, it differs from classroom instruction in that it follows no rigid pattern or curriculum. Participation is wholly voluntary. Different teaching methods are employed to achieve the fundamental object of inducing change in the thinking and behaviour pattern of the participants.

The teaching methods of Extension can be grouped in three broad categories. The first group employs objective illustrations, such as charts and posters, exhibits, slide films, motion pictures, pageants and plays and—most important—method and result demonstrations. The second group is by means of oral transmission, including office calls, farm and home visits, meetings, radio talks, phonograph records and telephone calls. The third category utilizes printed materials such as bulletins and other publications, circular letters, correspondence and news articles.

One basic principle underlying extension teaching is the 'show me' idea. Demonstration is, therefore, the foundation of extension teaching. It presents a proved, improved practice in terms of a practical application to a specific situation. The old Chinese adage, 'seeing once is worth more than hearing a hundred times', seems to bring home the truth that people are convinced more readily by what they see rather than by what they hear or read.

CONCLUSION

Extension Service has worked well in rural America. Whether it would prove equally successful in other countries depends on the general educational level, the development and application of science and technology, including adequate government services for research and extension, adequate facilities for transportation and communication, the ability and willingness to follow democratic philosophy and procedure, the devoted and efficient services by paid and voluntary leaders, and a system of organization and administration suited to the cultures and circumstances of the people. Co-operation is the key-word. Acceptance by the people of an Extension programme, in most instances, is insured by regard for their attitudes and values and by working in harmony with their ways of life.

NOTES AND RECORDS

BELGIAN CONGO

A specialist in tropical medicine, Dr. Walter F. Wright, M.D., of California, recently visited Belgium and the Congo and was struck by the effective health education conducted in the Congo by the health inspectors (*agents sanitaires*). He writes as follows:

There are two main needs in under-developed countries: fundamental education and the training of local staff. It is only through the adequate training of local personnel and the work done by them—chiefly in the field of tropical medicine—that an approach to broader aspects of fundamental education can be made. For if a man is ill he is unable to exert himself for his own survival and that of his family; one cannot 'teach' him fundamental skills without first making a practical approach to his health condition.

It is important to note, however, that fundamental education and medical care should go together. To secure the co-operation of the local population there must be trained workers, chosen from among the people because they know their people and problems best. Thus it is important to set up training centres with a programme that includes preventive medicine such as vaccination, protection of water supplies, proper drainage of the land and adequate sewage disposal.

The two phases of fundamental education then become: carrying a programme of treatment from village to village, and developing the training in literacy and vocational skills—such as agriculture, handwork, bricklaying—often by the use of visual aids. The more the people are helped towards health, the more they will profit from the second phase.

It may interest readers of the bulletin to know what has been accomplished in one of the largest under-developed countries—the Congo.

Institut de Médecine Tropicale Prince Léopold

This school of tropical medicine in Antwerp offers courses for doctors, nurses, missionaries and health inspectors; the courses last five months and are given twice a year in Flemish and French. Missionaries and health inspectors do not need any medical degree or previous medical training.

The Institute is a branch of Brussels University. It has a teaching staff of experienced specialists, well-equipped laboratories and an attached hospital of tropical medicine. The training is both theoretical and practical. Students receive a thorough training in tropical diseases and learn in the laboratory to identify the various carriers of these diseases. Microscope work includes the preparation and examination of blood-tests, smears and staining methods necessary in an identification. Series of lectures are given on hygiene (well-digging, sewage dispersal, etc.) and on the planning of new settlements. Students also study the methods of their work—how to carry a health programme from village to village, how to teach the natives to do these things for themselves by means of demonstration and by the use of visual aids. Finally, lectures are given on the administration of the Belgian Congo in order to show the future inspectors how they can best co-operate with both the Government and the people.

Medical administration in the Belgian Congo comprises a chief medical officer at Leopoldville, provincial doctors and local Government doctors in charge of hospitals in each section of the province. When a health inspector completes his course in Antwerp, he may enter the Government medical service of the Congo. He will then be posted to the staff of a local doctor to work in a particular district.

The health inspector's duties are twofold. He goes from village to village to carry out a programme of fundamental education in the form of preventive medicine: he teaches the natives how to protect water supplies and dispose of sewage, and gives the reasons for vaccination and other health measures. At the same time he provides on-the-spot diagnosis and treatment where possible—administers drugs, reduces fractures, pulls teeth, delivers babies. He collects specimens from the natives to take back to the local hospital; here he does the laboratory work with the help of native technicians. In this way the health inspector is able to diagnose and treat the prevailing diseases of his district. The local doctor's work is largely confined to the supervision and treatment of hospitalized patients, and the pressure of the task makes it impossible for him to go to the village people. The health inspector is thus a vital link between the doctor and the villagers.

Conclusion

In my view this system should be carefully studied for possible adoption in other parts of the world. The goal should be to establish medical centres in provinces to train local personnel as health inspectors who will then work under the supervision of district doctors and reach out to the remotest villages. For a start, Governments could send students to a school such as that of Antwerp, and these students could in their turn help to set up the local Government training centres.

It is important to note that all projects concerning fundamental education should emphasize medical and hygiene programmes—for only in this way can the other aims be reached.

[*Editor's note:* The next issue of this bulletin—April—has been placed at the disposal of the World Health Organization and will carry a series of articles and notes planned by that body.]

BURMA

A very considerable growth of the educational system is reported from Burma. The Unesco Advisory Mission during 1951 submitted a report to the Ministry which was subjected to careful scrutiny and analysis. During the year the authorities have elaborated plans for reorganization of the school system which are to take effect in 1952. In a general way these plans will entail a great expansion of primary schooling, a corresponding increase in the number of secondary schools and, particularly, efforts to improve the training of teachers. As a means of achieving the latter, a number of model schools are to be established in conjunction with teacher-training programmes and the in-service training of teachers will be assisted by the creation of a new teachers' journal.

The financial implications of these steps have been studied and it seems that the necessary funds will be made available.

Burma is also planning to develop its present system of 'compulsory education areas'. The size of these areas will be enlarged in the coming year and the year's work will be related to an overall ten-year plan intended to provide schooling for all of Burma's 1,894,000 children of school-going age.

EGYPT

The Menouf Project, organized by the Department of Social Affairs, is elaborating an all-round programme of fundamental education, and a specialist from Unesco, Mr. Alexander Shaw, is assisting in the preparation of visual aids for the teaching programme. The full report on his experimental work will not be available for some time but it appears that he is investigating the use of a wide range of these aids including films, filmstrips and posters. Two of the preparatory stills used in planning a film on illiteracy are shown below and on the next page.

Ali, Hassan's friend, with the buffalo who plays a large part in the story.





The literacy teacher. Played by himself, Abdul Rahman. He teaches Hassan to read and write.

EAST AFRICA

International Regional Education Conference

This conference took place in Nairobi, Kenya, on 14-16 August last year. It brought together representatives of six East and Central African territories, and at the invitation of the sponsors (the Colonial Office and the East Africa High Commission) an observer from Unesco attended the meeting. The delegates represented Departments of Education and Community Development Departments; the topics discussed covered a number of educational questions, with fundamental education, the provision of books for schools and libraries, and women's education as particular items of interest. The main purpose of the conference was to exchange information between the territories concerned and to consider ways and means for future co-operation.

GREECE

An interesting report has been drawn up by a convention of elementary school teachers in Rethymno, Crete, who recently discussed the teaching of nature study. A digest of the report follows.

One of the inspectors introduced the subject. He remarked that with the use of 'teaching units' in the elementary school, the problem was how to develop the natural history lesson and the school garden as centres of interest for such units of work.

Several delegates then described units or projects which they had developed. One such scheme arose from a study of the lamb. After the pupils had given accounts of the animal, the teacher presented a skeleton of the head of a lamb; its teeth were studied; this led to observation of the food, then to study of the form and function of the digestive system. The teacher now directed study to the whole animal and pupils were led to an idea of the causal relation between structure and way of life. Pictures of various kinds of sheep and talks on certain manufactures followed. During the project the children combined classwork with homework and several other types of lesson were involved, such as composition, speech, etc.

The convention fully discussed the question of nature study and came to a number of conclusions. The subject should be introduced in the first grade and continued through the remaining school years. At the lower level (the first three grades) a unit approach is to be used, and natural history may arise incidentally, or may form the starting point for teaching other lessons. Teachers should be left free to take whatever course of action is best suited to their localities and opportunities. At this level, too, pupils will be in direct communication with natural objects, and will realize causal relations only occasionally. For the three higher grades nature study becomes more of a classroom subject; progressively a more indirect method of teaching will be used.

Recommended methods vary with these objectives. The school garden, zoo and aquarium are indispensable for the generalized activities of younger pupils. Those in the fourth grade and upward still use the garden, zoo and aquarium but they have to keep systematic observations over one full year. School outings and formal lessons on biology are also introduced. By degrees through the school course the teacher takes the initiative less and less in an effort to develop group and individual work by the pupils. One of the convention's recommendations bears on the need for organizing school museums containing insect, mineral and animal collections from the neighbourhood.

MEXICO

Patzcuaro

The Regional Training and Production Centre for Fundamental Education at Patzcuaro is now firmly established. The first group of students, numbering fifty-five, came for a nine months' course, and a proposal to extend the course for a further period of nine months has recently been made. At the same time, the centre is to take in a second group of students early in 1952, bringing the total enrolment to over 100. During this first period the programme of studies has been carefully analysed with a view to improvement for subsequent courses. The production of material has been planned, but naturally takes a rather longer period for realization. A fortnightly bulletin, *Boletín Quincenal*, was begun on 30 September 1951. This is a four-page news-sheet giving short items of information about the work going on at the centre and readers who are interested may obtain copies by writing to: the Director, CREFAL, Patzcuaro, Michoacan, Mexico.

PAKISTAN

At the request of the Government of Pakistan, Unesco has recently sent an advisory mission of three members, headed by Mr. A. J. Boudreau (Canada), to make a survey of the present fundamental education situation in the country and to draw up recommendations for the Government's consideration. A particular feature of interest in this mission is the fact that special attention will be given to the education of women, and one member of the team has been delegated to study this field. It is hoped that the mission's report will provide a basis for long-term planning and reorganization of fundamental education in the country.

PHILIPPINES

As a follow-up to its previous advisory mission work, Unesco has recently sent to the Philippines, at the Government's request, a specialist in financial and administrative problems in education. He is Mr. J. Cayce Morrison (U.S.A.) and his task will be to advise the Government of the Philippines in their educational planning.

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